



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,928	11/21/2003	Shigeki Kamimura	008312-0306946	7550

909 7590 07/25/2006

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

KOSTAK, VICTOR R

ART UNIT PAPER NUMBER

2622

DATE MAILED: 07/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/717,928

Applicant(s)

KAMIMURA, SHIGEKI

Examiner

Victor R. Kostak

Art Unit

2622

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4 sheets</u> . | 6) <input type="checkbox"/> Other: ____. |

Art Unit: 2622

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. Note MPEP 606.01.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokoi et al.

Tokoi enables conversion of an input video signal being in either a progressive or interlaced format, into any of further progressive video formats (noting Fig. 32). His system (noting particularly Figs. 1, 2 and 23) involves an ultimate display unit (not shown) and first, second (and third) line memories 12-14 with respective writing and reading sections (as shown) used to provide lines for the downstream raster display. Calculating arrangement 16 and 17 generates new lines (when appropriate) from lines read out from the line memories. Selection arrangement 16 and 17 selectively outputs one of the lines from the plural line memories in alternating fashion, and to generate (when appropriate, according to a weighting scheme) new line signals (noting stages 18 and 19). Video output controller stage 30 controls the reading out of the line memories and the calculation of the new lines.

Tokoi does not disclose the requisite display driving circuitry. Nonetheless, since Tokoi enables conversion from what can be an interlaced or a progressive input format into a video signal for eventual presentation on a CRT, LCD or plasma device, it would have been obvious to

Art Unit: 2622

control the display driver to arrange the presentation of odd and even lines in a manner that deviates the lines relative to each other when the input format is interlaced, thereby allowing the initially alternating lines to remain alternated in the display mode.

Moreover, it would have been obvious to select the newly generated line in addition to the initially stored odd and even input lines when a higher line count is desired for display, as in generating progressive or higher definition video. The scaling stages 18 and 19 offer at the extreme range full lines or no lines (i.e. when $k = 1$), which is an option, thereby meeting claim 1.

As for claim 4, it would have been obvious to one of ordinary skill in the art to display the progressive scan format in the typical manner of presenting each selected scanning line simultaneously (during the same field/frame) when the input signal is interlaced, thereby effecting a line doubled format.

As for claim 7, it would also have been obvious (noting again that Tokoi does not describe the display driving in any detail) to display the selected odd and even fields deviated from each other by $n/2$ lines. The reading out of the three line stores at a rate twice that of the writing in enables the line doubled (or interlaced-to-progressive) conversion format.

Regarding claim 8, the video signals from the selection stages 16 and 18 are added (stage 21) which provides (when appropriate) a new line (i.e. when k is not 1).

3. Claims 2, 3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokoi et al. in view of Iacobelli et al.

Art Unit: 2622

Tokoi points out that LCD and plasma displays are common devices as well as the standard CRT device (col. 1 lines 25-27).

Like Tokoi, Iacobelli also discloses mixing video signals of different formats (e.g. col. 1 lines 9-11), and further points out that display device 105 can be a CRT, LCD or plasma devices for display of video data of different types (col. 4 lines 45-49). Iacobelli also notes that a standard 1080 high-resolution line count is also used for display (e.g. col. 7 line 54).

In view of this explicit disclosure, it would have been obvious to one of ordinary skill in the art use a standard 1080 line count as disclosed by Iacobelli on the LCD or plasma device of Tokoi, since Tokoi allows for any of plural formats that provides reasonable high-resolution imagery.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor R. Kostak whose telephone number is (571) 272-7348.

The examiner can normally be reached on Monday - Friday from 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, Virginia 22313-1450

Or faxed to:

(571) 273-8300

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office whose telephone number is (703) 308-HELP.



Victor R. Kostak
Primary Examiner
Art Unit 2622

VRK